

Remarks

Favorable reconsideration of this application is requested in view of the above amendments and in light of the following remarks and discussion.

Claims 1-5, 7-9, 11-16, 18-21 and 23-31 are pending in the application. Claims 1, 5, 7, 12 and 16 are amended, and claims 6, 10, 17 and 22 are canceled without prejudice or disclaimer. Support for the changes to the claims is self-evident from the originally filed disclosure, including the original claims, and therefore no new matter is added.

Initially, Applicants gratefully acknowledge the Examiner's indication of allowable subject matter is claims 3, 4, 6, 8, 9, 13-15 and 17-21. In response, claims 5 and 16 are amended to recite features of claims 6 and 17, respectively, which are currently canceled. Claims 7-9 and 18-21 depend from claims 6 and 17. Therefore, in accordance with the Examiner's indication of allowable subject matter, the allowance of claims 5, 7-9, 16 and 18-21 is requested.

In the Office Action claims 1, 2, 5, 7, 10, 12, 16 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Publication No. 2001-038272 to Koji. Claims 1, 2 and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Koji in view of U.S. Patent No. 5,919,520 to Tateyama et al. (Tateyama). It is requested that the rejections of the claims be withdrawn, and the claims allowed, for the following reasons.

The present invention, as set for the in independent claim 1, is directed to a process liquid supply nozzle. Specifically, independent claim 1 recites means for relatively moving a nozzle holder and a nozzle in a vertical direction such that a process liquid is discharged from a discharge port of the nozzle in a state that the discharge port of the nozzle protrudes downward from a through-hole of the nozzle holder, and the nozzle is cleaned with a cleaning liquid in a state that the nozzle is housed in the nozzle holder.

Koji is directed to a solution supply nozzle and solution supply apparatus. It is submitted that Koji does not disclose or render obvious, however, and the Office Action does not assert that Koji discloses or renders obvious, the claimed features of means for moving a nozzle holder relatively to a nozzle in a vertical direction, as recited in independent claim 1.

The Office Action appears to rely of Tateyama, however, to disclose features similar to those recited in independent claim 1. Specifically, on page 7, lines 4-7, the Office Action asserts that “it would have been obvious to modify the [Koji] nozzle by substituting its support arm with another support arm movable in XYZ directions which includes movement in the vertical direction such as shown by Tateyama.” It is submitted, however, that even if the Office Action’s assertions are agreed with, Tateyama still does not disclose or render obvious the claimed features of means for moving a nozzle holder relatively to a nozzle in a vertical direction, such that a process liquid is discharged from a discharge port of the nozzle in a state that the discharge port of the nozzle protrudes downward from a through-hole of the nozzle holder, and the nozzle is cleaned with a cleaning liquid in a state that the nozzle is housed in the nozzle holder, as recited in independent claim 1.

Rather, as set forth in the Office Action, Tateyama at most discloses a nozzle holder moving in directions including the vertical direction, but does not depict or describe moving a nozzle relative to a nozzle holder, and also does not depict or describe the relative movement such that a process liquid is discharged from a discharge port of the nozzle in a state that the discharge port of the nozzle protrudes downward from a through-hole of the nozzle holder, and the nozzle is cleaned with a cleaning liquid in a state that the nozzle is housed in the nozzle holder. Thus, Tateyama does not provide the efficient cleaning provided by the claimed invention, in which the nozzle protrudes from the nozzle holder when the process

liquid is discharged, such as to perform processing, but retreats into the nozzle holder when the cleaning liquid is, for example, discharged to perform cleaning of the nozzle.

For these reasons, the allowance of independent claim 1 is requested.

Independent claim 12 is allowable for reasons similar to those of independent claim 1. The allowance of independent claim 12 is therefore requested.


Claims 2-4 and 13-15 are allowable for the same reasons as independent claims 1 and 12 from which they depend, as well as for their own features. The allowance of dependent claims 2-4 and 13-15 is requested.

Consequently, for the reasons discussed in detail above, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal allowance. Therefore, a Notice of Allowance is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.

Respectfully submitted,

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